



EXPEDITED PROCEDURE  
EXAMINING GROUP 3752

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re: Application No. 10/632,268 ) *Confirmation No. 5487*

Filed: July 31, 2003 )

Applicants: Christian T. GREGORY et al. )

Title: IRRIGATION SPRINKLER  
NOZZLE WITH ENHANCED  
CLOSE-IN WATER  
DISTRIBUTION )  
I hereby certify that this paper (along with  
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Commissioner for Patents, P.O. Box 1450,  
Alexandria, VA 22313-1450, on this date.

Art Unit: 3752 )

Examiner: KIM, Christopher S. )

11/11/2005

Date Mark W. Hetzler  
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Attorney Docket: 7946/82970 )

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Alexandria, Virginia 22313-1450

**DECLARATION OF CHRISTIAN T. GREGORY UNDER 37 C.F.R. § 1.132**

I, CHRISTIAN T. GREGORY, declare as follows:

**I. Introduction**

1. I am one of the inventors of the invention claimed in the above-captioned patent application, U.S. Patent Application Serial No. 10/632,268.

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2. I have personal knowledge of the matters stated herein.
3. The assignee of the above-captioned application is Rain Bird Corporation. I have been employed at Rain Bird Corporation for over seven years and currently am a Senior Project Engineer.
4. Rain Bird Corporation is involved with providing irrigation products and systems. The products include sprinklers.
5. As a result of my work at Rain Bird Corporation, I have gained significant experience with preparing three-dimensional computer models of products, including sprinklers, using SOLIDWORKS computer software.

## **II. Office Action**

6. I have reviewed the Office Action dated September 20, 2005 ("the Office Action") issued by the United States Patent and Trademark Office ("Patent Office") in the above-captioned application.
7. From my review of the Office Action, it is my understanding that the Patent Office Examiner has rejected all of the claims as being anticipated by US 2,778,687 to Hegstad ("Hegstad"). I further understand that the Examiner has identified reference numbers 29 and 31 in Hegstad to be a plurality of ramps that angle forwardly and downwardly from the lower margin of the nozzle outlet. It is my further understanding that the Examiner considers walls 31 to angle forwardly and downwardly as evidenced by the boundary of walls 31 as shown in figure 3 of Hegstad.
8. I have reviewed Hegstad and understand it to disclose a spray nozzle. I further understand Figure 2 of Hegstad to illustrate an end view of the spray nozzle, Figure 3 of Hegstad to illustrate a sectional view of the same spray nozzle

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taken along line 3-3 in Figure 2, and Figure 4 of Hegstad to illustrate an enlarged fragmentary view of the same spray nozzle taken along line 4-4 in Figure 2.

### III. Analysis of Hegstad

9. Using the written disclosure in conjunction with Figures 2-4 of Hegstad, I prepared a three-dimensional computer model of the spray nozzle disclosed by Hegstad using SOLIDWORKS computer software. I created the seven different three-dimensional views of the Hegstad spray nozzle shown in Exhibits 1 and 2 (attached hereto) using SOLIDWORKS computer software. I labeled wall 31 in Figures 4-7 of Exhibits 1 and 2 to correspond with reference numbers 31 in Hegstad.

10. Boundary line A, which I also labeled in Figures 4-7 of Exhibits 1 and 2, corresponds to the forward, angled edge of wall 31 in Figure 3 of Hegstad.

11. Boundary line A also is the intersection formed between the wall 31 and the V-shaped groove, which has a conical surface, when the cylindrical mill 32 forms the wall 31, as described in Col. 2, line 70 through Col. 3, line 18 of Hegstad. Accordingly, walls 31 and the corresponding boundary line A thereof only appear to angle in the two dimensional Figure 3 of Hegstad because the wall 31 is cut into the nozzle through a V-shaped notch that has a conical surface.

12. Based on my analysis and experience, I respectfully disagree with the conclusion in the Office Action that the walls 31 or boundary line A thereof in Figure 3 of Hegstad disclose a discrete ramp formed at the lower margin of the nozzle outlet that extends forwardly and downwardly. Upon review of Exhibits 1 and 2 and Hegstad, the walls 31 plainly do not angle forwardly and downwardly in Hegstad, but are vertical surfaces located at the sides of the nozzle outlet, not at the lower margin.

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I declare under penalty of perjury that the foregoing is true and correct.  
Executed this 10<sup>TH</sup> day of NOVEMBER, 2005.

Christian T. Gregory  
Christian T. Gregory